## LOW-TO-HIGH LEVEL SHIFTER Abstract

A low-to-high level shifter operating under a first supply voltage is disclosed. The low-to-high level shifter includes a pull-down circuit coupled to an input signal, the pull-down circuit having a plurality of low-voltage devices, the input signal corresponding to a second supply voltage; and a pull-up circuit coupled to the pull-down circuit, the pull-up circuit having a plurality of high-voltage devices. The low-to-high level shifter generates an output signal according to the input signal, the output signal corresponds to the first supply voltage, and the first supply voltage is larger than the second supply voltage.